

SDLC Process

Description

Discusses the application of software assurance best practices in the context of various SDLC methodologies, including RUP, XP, Agile, Waterfall, and the Spiral Model.

Overview Articles

Name	Version Creation Time	Abstract
Secure Software Development Life Cycle Processes	9/9/09 10:38:53 AM	This article presents overview information about existing processes, standards, life-cycle models, frameworks, and methodologies that support or could support secure software development. The initial report issued in 2006 has been updated to reflect changes.

Most Recently Updated Articles [Ordered by Last Modified Date]

Name	Version Creation Time	Abstract
Secure Software Development Life Cycle Processes	9/9/09 10:38:53 AM	This article presents overview information about existing processes, standards, life-cycle models, frameworks, and methodologies that support or could support secure software development. The initial report issued in 2006 has been updated to reflect changes.
Strengthening Ties Between Process and Security	11/14/08 5:10:20 PM	A growing recognition of the importance of security throughout the life cycle has led to new initiatives strengthening ties for security within the SDLC. The role of process in support of security must also be expanded across the full life cycle. Progress has been made in linking security, the SDLC, and process improvement. This article summarizes recent key accomplishments, including an industry-led initiative to harmonize security practices with CMMI, the use of assurance cases, and NIST security considerations in the SDLC.

Correctness by Construction	11/14/08 5:08:31 PM	<i>Correctness by Construction</i> (CbyC) is a radical, effective, and economical method of building software with demonstrable integrity for security- and safety-critical applications. CbyC combines the best parts of two superficially unlikely bedfellows: formal methods and agile development. For example, we take from the former <i>precise notations</i> and from the latter <i>incremental development</i> .
Maturity Framework for Assuring Resiliency Under Stress	8/28/08 2:43:20 PM	Managing assurance is to reason about the emergent properties of large complex software-intensive systems; to take action to steer enterprise commitment towards their assurance; and to guide buyers, users, and the public in setting their level of confidence in these systems and systems of systems. The purpose of this article is to specify a framework for assuring the resiliency of the critical infrastructure through a management, process, and engineering framework of capabilities and solutions along with the model-based business, technical, and operational claims, arguments, and evidence useful in its assessment.

All Articles [Ordered by Title]

Name	Version Creation Time	Abstract
Correctness by Construction	11/14/08 5:08:31 PM	<i>Correctness by Construction</i> (CbyC) is a radical, effective, and economical method of building software with demonstrable integrity for security- and safety-critical applications. CbyC combines the best parts of two superficially unlikely bedfellows: formal methods and agile development. For example, we take from the former <i>precise notations</i> and from the latter <i>incremental development</i> .
Maturity Framework for Assuring Resiliency Under Stress	8/28/08 2:43:20 PM	Managing assurance is to reason about the emergent properties of

		<p>large complex software-intensive systems; to take action to steer enterprise commitment towards their assurance; and to guide buyers, users, and the public in setting their level of confidence in these systems and systems of systems. The purpose of this article is to specify a framework for assuring the resiliency of the critical infrastructure through a management, process, and engineering framework of capabilities and solutions along with the model-based business, technical, and operational claims, arguments, and evidence useful in its assessment.</p>
Secure Software Development Life Cycle Processes	9/9/09 10:38:53 AM	<p>This article presents overview information about existing processes, standards, life-cycle models, frameworks, and methodologies that support or could support secure software development. The initial report issued in 2006 has been updated to reflect changes.</p>
Strengthening Ties Between Process and Security	11/14/08 5:10:20 PM	<p>A growing recognition of the importance of security throughout the life cycle has led to new initiatives strengthening ties for security within the SDLC. The role of process in support of security must also be expanded across the full life cycle. Progress has been made in linking security, the SDLC, and process improvement. This article summarizes recent key accomplishments, including an industry-led initiative to harmonize security practices with CMMI, the use of assurance cases, and NIST security considerations in the SDLC.</p>